

AMENDMENTS

In the Claims:

Please cancel Claims 8-10, 13-14, 16, 22 and 25-33 in view of continuation application filed September 19, 2002, and substitute amended Claims 17-21 for the pending Claims 17-21 as follows:

Sub
B/C 17. An integrated controller comprising a machine controller, sensory electronics and a user-interface, for use with a part-forming machine, comprising:

a computer having a data interface;

sensory electronics in communication with said data interface of said computer, said sensory electronics outputting sensory data to said computer via said data interface;

a program for analyzing said sensory data from said sensory electronics and controlling the part-forming machine and said sensory electronics in response to said sensory data; and

means for displaying information, said display means in communication with said computer,

wherein said sensory electronics is at least one vision sensor, wherein said sensory electronics functionally communicates with said data interface of said computer, and wherein the injection-molding

B1
C1
machine. is functionally communicatable with said data interface of said computer.

18. An integrated controller comprising a machine controller, sensory electronics and a user-interface, for use with a part-forming machine, comprising:

a computer having a data interface;

sensory electronics in communication with said data interface of said computer, said sensory electronics outputting sensory data to said computer via said data interface;

a program for analyzing said sensory data from said sensory electronics and controlling the part-forming machine and said sensory electronics in response to said sensory data; and

means for displaying information, said display means in communication with said computer,

wherein said sensory electronics is at least one infrared sensor, wherein said sensory electronics functionally communicates with said data interface of said computer, and wherein the injection-molding machine is functionally communicatable with said data interface of said computer.

19. An integrated controller comprising a machine controller, sensory electronics and a user-interface, for use with a part-forming machine, comprising:

a computer having a data interface;

B1
C1
sensory electronics in communication with said data interface of said computer, said sensory electronics outputting sensory data to said computer via said data interface;

a program for analyzing said sensory data from said sensory electronics and controlling the part-forming machine and said sensory electronics in response to said sensory data; and

means for displaying information, said display means in communication with said computer, wherein said sensory electronics is at least one air pressure sensor, wherein said sensory electronics functionally communicates with said data interface of said computer, and wherein the injection-molding machine is functionally communicatable with said data interface of said computer.

20. An integrated controller comprising a machine controller, sensory electronics and a user-interface, for use with a part-forming machine, comprising:

a computer having a data interface;

sensory electronics in communication with said data interface of said computer, said sensory electronics outputting sensory data to said computer via said data interface;

a program for analyzing said sensory data from said sensory electronics and controlling the part-forming machine and said sensory electronics in response to said sensory data; and

B1
C1
means for displaying information, said display means in communication with said computer, wherein said sensory electronics is at least one vacuum sensor, wherein said sensory electronics functionally communicates with said data interface of said computer, and wherein the injection-molding machine is functionally communicatable with said data interface of said computer.

21. An integrated controller comprising a machine controller, sensory electronics and a user-interface, for use with a part-forming machine, comprising:

a computer having a data interface;

sensory electronics in communication with said data interface of said computer, said sensory electronics outputting sensory data to said computer via said data interface;

a program for analyzing said sensory data from said sensory electronics and controlling the part-forming machine and said sensory electronics in response to said sensory data; and

means for displaying information, said display means in communication with said computer, wherein said sensory electronics is at least one ultrasonic sensor, wherein said sensory electronics functionally communicates with said data interface of said computer, and wherein the injection-molding machine is functionally communicatable with said data interface of said computer.

REMARKS

Examiner has rejected Claims 8-10, 13-14, 16, 22, 25-33 under 35 U.S.C. § 102(e) as being anticipated by *Choi* (US 6,275,741). In response, Applicant has cancelled Claims 8-10, 13-14, 16, 22 and 25-33 herein expressly without prejudice and with traverse, and Applicant has filed a continuation application this date pursuant to 37 C.F.R. 1.53(b) in anticipation of possibly initiating an interference action with *Choi*.

Examiner has rejected Claims 17-20 under 35 U.S.C. § 103(a) as being unpatentable over *Choi* in view of *Maus et al.* (US 6,024,902). Specifically, with regards to Claim 17, Examiner states that *Maus* discloses sensory electronics having "at least one vision sensor," referencing Col. 23, lines 37-45. In response thereto, Applicant respectfully traverses Examiner's rejection and amends dependent Claim 17 to incorporate the limitations of cancelled independent Claim 16, thereby rendering Claim 17 independent.

Unlike Applicant's invention, *Maus* is a method and apparatus for forming lenses, and the "vision sensor" cited by Examiner is a lens inspection system for cosmetic inspection of the finished product, specifically for optically inspecting the surface of the hardcoated

lenses for flaws. One skilled in the art would not look to an apparatus for inspecting finished lens products to solve the problem remedied by Applicant's invention for injection molding. Therefore, Applicant respectfully asserts that the *Maus* patent is non-analogous art.

Applicant's vision sensor is not a means for analyzing the finished product. Applicant's vision sensor is an integral component of the product creation method and apparatus, wherein the integrated vision sensor of this embodiment of Applicant's invention repeatedly assesses the status of the mold for the presence or absence of the part and utilizes this information for controlling the operation of the part-forming process. The *Maus* patent neither teaches, suggests nor motivates one skilled in the art to utilize the "vision sensor" of *Maus* for the part-molding process. Applicant respectfully asserts that since *Maus* does not disclose or anticipate the vision sensor of Claim 17, Claim 17 is nonobvious and is therefore patentable and in condition for allowance.

Specifically, with regards to Claim 18, Examiner states that *Maus* discloses sensory electronics having "at least one infrared sensor," referencing Col. 21, line 18 and Col. 20, line 65. In response thereto, Applicant respectfully traverses Examiner's rejection and amends dependent Claim 18 to incorporate the limitations of cancelled independent Claim 16, thereby rendering

Claim 18 independent.

Unlike Applicant's invention, *Maus*' "infrared sensor" as cited by Examiner is a "noncontact infrared pyrometer" for assessing the temperature of a finished lens product, specifically with reference to subsequent immersion of the lens into a circulating filtered alcohol tank for cooling. Applicant's infrared sensor is not a means for analyzing the temperature of the finished product. As described above with reference to the vision sensor, Applicant's infrared sensor is an integral component of the product creation method and apparatus, wherein the integrated infrared sensor of this embodiment of Applicant's invention repeatedly assesses the status of the mold for the presence or absence of the part and utilizes this information for controlling the operation of the part-forming process. The *Maus* patent neither teaches, suggests nor motivates one skilled in the art to utilize the "infrared sensor" of *Maus* for the part molding process. Applicant respectfully asserts that since *Maus* does not disclose or anticipate the infrared sensor of Claim 18, Claim 18 is nonobvious and is therefore patentable and in condition for allowance.

Specifically, with regards to Claim 19, Examiner states that *Maus* discloses sensory electronics having "at least one air pressure sensor," referencing Col. 13, lines 4-5. In response thereto, Applicant respectfully traverses Examiner's rejection and amends

dependent Claim 19 to incorporate the limitations of cancelled independent Claim 16, thereby rendering Claim 19 independent.

Applicant respectfully believes Examiner's citation is to Col. 14, lines 4-5, wherein a reference is found to air valves for control of air flow and pressure. The *Maus* "air pressure sensor" cited by the Examiner is for control of air lines that "provide air blow in an ejection sequence." Applicant's air pressure sensor is not a means for controlling air flow for ejection of a part, but as described above with reference to the vision and infrared sensors, Applicant's air pressure sensor is an integral component of the product creation method and apparatus, wherein the integrated air pressure sensor of this embodiment of Applicant's invention assesses the status of the mold for the presence or absence of the part and utilizes this information for controlling the operation of the part-forming process. The *Maus* patent neither teaches, suggests nor motivates one skilled in the art to utilize the "air pressure sensor" of *Maus* for the part molding process. Applicant respectfully asserts that since *Maus* does not disclose or anticipate the air pressure sensor of Claim 19, Claim 19 is nonobvious and is therefore patentable and in condition for allowance.

Specifically, with regards to Claim 20, Examiner states that *Maus* discloses sensory electronics having "at least one vacuum sensor," referencing Col. 9, lines 9-29 and stating that "it is

inherent that there is a vacuum sensor in a vacuum-deposition chamber." In response thereto, Applicant respectfully traverses Examiner's rejection and amends dependent Claim 20 to incorporate the limitations of cancelled independent Claim 16, thereby rendering Claim 20 independent.

Applicant respectfully believes Examiner's citation is to Col. 24, lines 9-29, wherein a reference is found to a vacuum-deposition chamber. The *Maus* "vacuum sensor" is cited by the Examiner as "inherent" in the vacuum-deposition chamber, wherein the vacuum-deposition chamber is enabling the vacuum coating application of anti-reflective coating to a formed lens. Applicant's vacuum sensor is not a component of a means for treating a formed part after completion thereof, but as described above with reference to the other types of sensors, Applicant's vacuum sensor is an integral component of the product creation method and apparatus, wherein the integrated vacuum sensor of this embodiment of Applicant's invention assesses the status of the mold for the presence or absence of the part and utilizes this information for controlling the operation of the part-forming process. The *Maus* patent neither teaches, suggests nor motivates one skilled in the art to utilize the "vacuum sensor" of *Maus* for the part molding process. Applicant respectfully asserts that since *Maus* does not disclose or anticipate the vacuum sensor of Claim 20, Claim 20 is nonobvious and is therefore patentable and in condition for allowance.

Examiner has rejected Claim 21 under 35 U.S.C. § 103(a) as being unpatentable over *Choi* in view of *Joseph* (US 5,891,383). Specifically, with regards to Claim 21, Examiner states that *Joseph* discloses sensory electronics having "at least one ultrasonic sensor," referencing Col. 23, lines 37-45. In response thereto, Applicant respectfully traverses Examiner's rejection and amends dependent Claim 21 to incorporate the limitations of cancelled independent Claim 16, thereby rendering Claim 21 independent.

Unlike Applicant's invention, *Joseph* is a method and apparatus for cooling extruded film tubes and the "ultrasonic sensor" cited by Examiner is a means for assessing the diameter of an extruded film tube prior to stretching and expansion thereof, wherein the diameter of the extruded film tube is directly related to the final parameters of the plastic bags or sheets formed therefrom. Applicant's ultrasonic sensor is not a means for analyzing the size of an interim product. Applicant's ultrasonic sensor is an integral component for maximizing the output of the method and apparatus, wherein the integrated ultrasonic sensor of this embodiment of Applicant's invention assesses the status of the mold for the presence or absence of the part and utilizes this information for controlling the operation of the part-forming process. The *Joseph* patent neither teaches, suggests nor motivates one skilled in the art to utilize the "ultrasonic sensor" of *Joseph* for the part molding process.